

We Claim:

1. A composition comprising Component A and Component B;
wherein Component A comprises: gypsum, an alkaline first polymer, an alkaline agent, and a hydration inhibitor; and
wherein Component B comprises: a second polymer, a filler, and an activator.
2. The composition of claim 1 wherein both Components A and B are dispersed in an aqueous medium.
3. The composition of claim 2 wherein the volume ratio of Component A to Component B is from 95:5 to 5:95.
4. The composition of claim 1 wherein Component A comprises: 20-99 wt% alkaline first polymer; 50-80 wt% gypsum, 0.05-1.0 wt% alkaline agent, and 0.1-2.0 wt% hydration inhibitor, based on the total weight of Component A.
5. The composition of claim 1 wherein Component B comprises: 20-99 wt% second polymer; 30-50 wt% filler and 0.1-6.0 wt% activator, based on the total weight of Component B.
6. A method of forming a polymer-modified gypsum comprising forming Component A and Component B; wherein Component A comprises: gypsum, an alkaline first polymer, an alkaline agent, and a hydration inhibitor; and wherein Component B comprises: a second polymer, a filler, and an activator; and
admixing Component A and Component B.
7. The method of claim 6 further comprising applying said admixture to a substrate.
8. The method of claim 7 wherein the substrate is the excavated rock surface of a subterranean mine.
9. A polymer-modified gypsum formed by the method of claim 6.